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Comment Takatoshi Ito

I have two kinds of comments on Fukuda's paper. First, I will examine the plausibility of the basic assumptions on information asymmetry and their implications; second, I will comment on the data interpretation.

Basic Assumptions

This paper sets up a theoretical model of asymmetric information on bank lending, motivated by recent problems in international bank lending to Asian countries (as shown by the author, citing statistics collected by the Bank for International Settlements [BIS]). Given how important international bank lending has been in Asian economies, both positively (before the crisis) and negatively (during the crisis), a contribution on understanding banks' lending behavior is welcome.

In Fukuda's model, borrowers know that they are of either good type (higher probability to succeed) or bad type (lower probability to succeed). Lenders cannot distinguish between them when making bank loans, unless they behave differently. Lending can be made for either one period or two periods; bank monitoring reveals some of the good borrowers after one period. Knowing this monitoring activity, good-type borrowers have incentive to borrow short (one-period loans) in the hope that they may be identified as being of good type. The tradeoff for going short is that, after one period, there may be a bank run, and even good-type borrowers would not have a rollover of bank loans. Without a rollover, only a fraction of a project is recovered in the process of liquidation. If good-type borrowers choose to borrow short, then bad-type borrowers must also borrow short in order to avoid being identified as bad. Comparative statics shows that if the proportion of the good-type borrower is higher, then good-type borrowers tend to borrow short. If monitoring to identify good-type borrowers after one period becomes more accurate, good-borrowers tend to borrow short.

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This conclusion is counterintuitive. In the real world, my intuition says, a good borrower tends to favor a long-term loan, not a short-term loan, because the good borrower would not like to be caught by liquidity shortage in the middle of the project. My intuition also says that a lender, not a borrower, prefers short-term loans if it suspects that there are more bad borrowers than before, or if the monitoring technique is enhanced to pick bad borrowers after one period. If Fukuda's model is right, we should expect to find that bank lending to Asia has a higher short-term lending ratio in good times (1993–95), while the long-term lending ratio would rise as the crisis nears (1996–97). This is hard to be confirmed in table 4.3 of the paper. So, empirically, theoretical prediction is somewhat inconclusive.

In 1994, the maturity structure of Mexican government bonds shifted to short-term (and dollar indexed) before the eventual crisis in December. Investors refused to purchase long-term bonds, fearing a devaluation. Similarly, short-term Russian bonds (GKOs) in 1998 soared, with investors becoming increasingly skeptical about the sustainability of fiscal deficits and the level of the ruble. Of course, these are bonds, not bank lending, which is the focus of the study in the Fukuda paper; but these examples would suggest the lender's preference and behavior.

So, the rest of my comments explore why my intuitions are not predicted by his theory. Basically, I will argue that assumptions of the model are responsible for these counterintuitive results.

First, monitoring is assumed to distinguish a portion of only good-type borrowers after one period, but none of the bad-type borrowers. This is analogous to a situation in which there is only upside risk and no downside risk in lending. If there is a possibility that bad-type borrowers can be identified, then lenders—not borrowers—may want to keep loans in the short term. Second, in Fukuda's model, decisions are made only by borrowers; but in the real world, lenders may be more influential in determining the maturity structure. Taking the first and second comments seriously, I conjecture the following comparative statistics result. The higher the proportion of bad-type borrowers, the more likely the loans will be of short term.

Third, there is no interest rate as a market-clearing price. I wonder whether it is possible to extend the Fukuda model so that the loan demand function is derived from the borrower's choice, while the loan supply function is derived from the lender's choice. The interest rate is then determined in equilibrium. Once this is done, then the yield curve (the difference between the short-term and the long-term interest rates) may be derived. The slope of the yield curve reflects, among other things, the degree of risk to be revealed later (the future short-term interest rate and the exchange rate fluctuation, for example).

Fourth, in deriving the yield curve as an equilibrium of lender's and borrower's choices, it may be worthwhile to introduce uncertainties about

public information, such as the world interest rate, the exchange rate changes, and general economic conditions of the country where borrowers reside.

Integrating these comments would make the paper much more relevant to the real-world problem of international bank lending.

Data Interpretation

Medium-term and long-term loans (that is, those with maturity of one to two years, and beyond two years, respectively) did not decrease as much as short-term loans (with maturity of less than one year). From this, Professor Fukuda concludes that longer-term loans are less mobile. He tries to explain the proportion of short- to medium- and long-term loans by asymmetry of information. However, in reality, these two types of loans may represent different kinds of customers and loan conditions. For example, medium- and long-term loans from Japanese banks are directed to subsidiaries of Japanese companies and may be guaranteed by Japanese parent companies. Short-term loans may be directed to local banks. Local banks direct the loans to corporations. What lenders have to do is to monitor local banks' performance, but not the companies' performance directly. If this inference is right, then there is a good reason for the way loan maturity is chosen and for the mobility of longer-term loans. The ratio between short-term loans and long-term loans is determined by such factors as how banks are financing foreign direct investment and how banks obtain parent companies' guarantees—which are reasons other than monitoring technology and the ratio of good and bad companies. The BIS statistics do not tell us information with regard to guarantees, currency risk exposure, and hedge ratio; it would be difficult to derive policy implication. Hence, one should be cautious in interpreting the BIS statistics and the implications of the model.

In summary, this paper raises interesting issues on how a maturity structure of bank loans is determined. The model highlights the roles of monitoring ability and choice by borrowers. It will be interesting to extend the Fukuda model to include other important factors in loan decisions.

Comment Yukiko Fukagawa

The crisis in East Asia prompted academic and practical interests on the role of short-term loans in bringing about the crisis. The paper undertakes

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